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~~What is claimed is:~~

1. An electric semiconductor component having a monocrystalline semiconductor substrate (1), an insulation layer (6) arranged on the surface of the semiconductor substrate (1) and penetrated by a contact hole (30, 41, 50, 70) in at least one location, and a contact structure which contacts the semiconductor substrate (1) through the contact hole (6) and is made of a material in which the semiconductor material of the substrate is soluble in an anisotropic dissolving process, wherein the edges of the contact hole (30, 41, 50, 70) are designed as diffusion stop structures.
2. The semiconductor component according to Claim 1, wherein the diffusion stop structures include curved segments.
3. The semiconductor component according to Claim 2, wherein the contact hole (50) is designed to be circular or as overlapping intersecting circles.
4. The semiconductor component according to one of the preceding claims, wherein the diffusion stop structures include microstructured sections of the edges (80).
5. The semiconductor component according to Claim 4, wherein the microstructured sections (80) have a crenellated or sawtooth pattern.
6. The semiconductor component according to Claim 5, wherein the crenelations or sawteeth are formed by projections (71), each having an edge length of 2 μm or less.
7. The semiconductor component according to one of the preceding claims, wherein the material of the semiconductor substrate has at least one class of crystal planes which are subject to little or no attack in the dissolving process; and the diffusion stop structures include rectilinear sections of

the edges intersecting such crystal planes of the class running beneath the contact hole (30, 41) in the semiconductor substrate (1).

8. The semiconductor component according to Claim 8, wherein the contact hole (30, 41) is in the form of an equilateral triangle or overlapping, intersecting equilateral triangles.

9. The semiconductor component according to one of the preceding claims, wherein the substrate is a $\langle 111 \rangle$ Si substrate.

10. The semiconductor substrate according to Claim 9, wherein the contact hole has edges which are rotated by approx. $\pm 15^\circ$ toward the lines of intersection of the $\langle 11\bar{1} \rangle$, $\langle 1\bar{1}1 \rangle$ or $\langle \bar{1}11 \rangle$ crystal planes with the surface.